CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. 88 - 115

NPDES NO. CA0029416

WASTE DISCHARGE REQUIREMENTS FOR:

SAFETY-KLEEN CORPORATION

FOR THEIR FORMER FACILITY AT:

3461 WOODWARD AVENUE
SANTA CLARA
SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. Site Cleanup Requirements were adopted for Safety-Kleen Corporation, a former operater of the site, and John Bertolotti, the property owner, in March 1987. Safety-Kleen, hereinafter referred to as the discharger, has applied for a National Pollutant Discharge Elimination System (NPDES) permit to discharge waste as part of their interim remediation system.

2. The discharger, a national solvent supplier and reclaimer, operated a service facility at the site from 1977 until they vacated the property in 1984. The site occupies approximately one-third of an acre and is located about one-half mile west of the Guadalupe River.

3. Subsurface investigations indicated that soil and groundwater is polluted at the site from spillage of spent solvents into a fill pipe which led to a 15,000 gallon underground storage tank and from spillage near this spent solvent tank and a 15,000 gallon clean solvent tank. Clean and spent solvent consisted primarily of mineral spirits (petroleum naptha) with less than one percent light aromatic hydrocarbons, toluene, perchloroethene, 1,1,1 trichloroethane, trichloroethene and methylene chloride.

4. From the results of one deeper monitoring well (screened from 39-44 feet below ground surface), groundwater pollution at the site is limited to the uppermost aquifer located between 12-25 feet below ground surface. A shallow zone extraction well (RW-1), screened from 8-28 feet below ground surface, was installed in October 1987. Based on calculations from a 24 hour pump test with RW-1 pumping at five gallons per minute, and a

concern that a petroleum plume located approximately 200 feet downgradient from RW-1 does not draw off-site pollutants into the well, the dischargers propose to extract groundwater from RW-1 at a rate of 25 gallons per minute. Because RW-1 is installed in the area of highest groundwater pollution and the discharger anticipates that this well will capture all on-site pollutants, no additional extraction wells are proposed.

5. Groundwater extracted from RW-1 will be treated by air-stripping. The treated effluent will discharge to a storm drain located on Woodward Avenue (Figure 1) which leads to Guadalupe Creek andthento South San Francisco Bay.

6. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives for South San Francisco Bay, and contiguous surface and groundwater.

7. The beneficial uses of the Guadalupe River include:

   - Contact and non-contact water recreation
   - Warm fresh water and cold fresh water habitat
   - Wildlife habitat
   - Fish Migration and spawning

8. The beneficial uses of South San Francisco Bay include:

   - Contact and non-contact water recreation
   - Wildlife habitat
   - Preservation of rare and endangered species
   - Estuarine habitat
   - Fish spawning and migration
   - Industrial service supply
   - Shellfishing
   - Navigation
   - Ocean commercial and sport fishing

9. The Basin Plan prohibits discharge of wastewater which has "particular characteristics of concern to beneficial uses" (a) "at any point in San Francisco Bay south of the Dumbarton Bridge" and (b) "at any point where the wastewater does not receive a minimum initial dilution of at least 10:1 or into any nontidal water, deadend slough, similar confined water, or any immediate tributary thereof."

10. The Basin Plan allows for exceptions to the prohibitions referred to in Finding 9 above when it can be demonstrated that a net environmental benefit can be derived as a result of the discharge.

11. Exceptions to the prohibitions referred to in Finding 9 are warranted because the discharge is an integral part of a program to clean up contaminated groundwater and thereby has an environmental benefit, and because receiving water concentrations are expected to be below levels that would effect

beneficial uses. Should studies indicate aquatic toxicity effects not currently anticipated, the Board will review the requirements of this Order based upon section B.1.e.

12. The Basin Plan prohibits discharge of "all conservative toxic and deleterious substances, above those levels which can be achieved by a program acceptable to the Board, to waters of the Basin." The discharger's groundwater extraction and treatment system and associated operation, maintenance, and monitoring plan constitutes an acceptable control program for minimizing the discharge of toxicants to waters of the State.

13. Effluent limitations of this Order are based on the Basin Plan, State plans and policies, U.S. Environmental Protection Agency guidance, and best engineering judgment as to best available technology economically achievable.

14. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

15. The Board has notified the discharger and interested agencies and persons of its intent to issue waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

16. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Effluent Limitations

1. The discharge to the storm drain from the treatment system shall not contain constituents in excess of the following limits:

Constituent	Units	Instantaneous Maximum
Trichloroethylene	mg/L	0.005
1,1,1-trichloroethane	mg/L	0.005
1,1-dichloroethane	mg/L	0.005
1,2-dichloroethane	mg/L	0.005
1,1-dichloroethene	mg/L	0.005
1,2-dichloroethene	mg/l	0.005
Trichlorotrifluoroethane	mg/L	0.005
Carbon tetrachloride	mg/l	0.005
Tetrachloroethene	mg/l	0.005
Benzene	mg/l	0.005
Chlorobenzene	mg/l	0.005
1,2-dichlorobenzene	mg/l	0.005
1,4-dichlorobenzene	mg/l	0.005
Ethylbenzene	mg/l	0.005
Xylenes	mg/l	0.005
* Toluene	mg/l	0.001
* Mineral Spirits	mg/l	1.000

* These limits are based on the analytical detection limits for these chemicals. If lower detection limits are possible, these instantaneous maximum concentrations may be reduced.

2. The pH of the discharge shall not exceed 8.5 nor be less than 6.5.

3. In any representative set of samples, the discharge of waste shall meet the following limit of quality:

TOXICITY: The survival of rainbow trout fish in 96 hour bioassays of the effluent as discharged (to be conducted annually) shall be a median of 90 % survival and a 90 percentile value of not less than 70 % survival.

B. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

a. Floating, suspended, or deposited macroscopic particulate matter or foam.

b. Bottom deposits or aquatic growths;

c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place:

a. Dissolved oxygen:	5.0 mg/l minimum. The dissolved oxygen concentration shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause lesser concentration(s) than specified above, the discharge shall not cause further reduction in the concentration of dissolved oxygen.
b. pH:	The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH levels by more than 0.5 units.

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Board will revise and modify this order in accordance with such more stringent standards.

C. Provisions

1. The discharger shall comply with all sections of this order immediately upon adoption.

2. The discharger shall comply with the self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.

3. The discharger shall also notify the Regional Board if any activity has occurred or will occur which would result in the discharge, on a frequent or routine basis, of any toxic pollutant which is not limited by this Order.

4. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated December 1986, except items A.10, B.2, B.3, C.8, and C.11.

5. This Order expires July 20, 1993. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

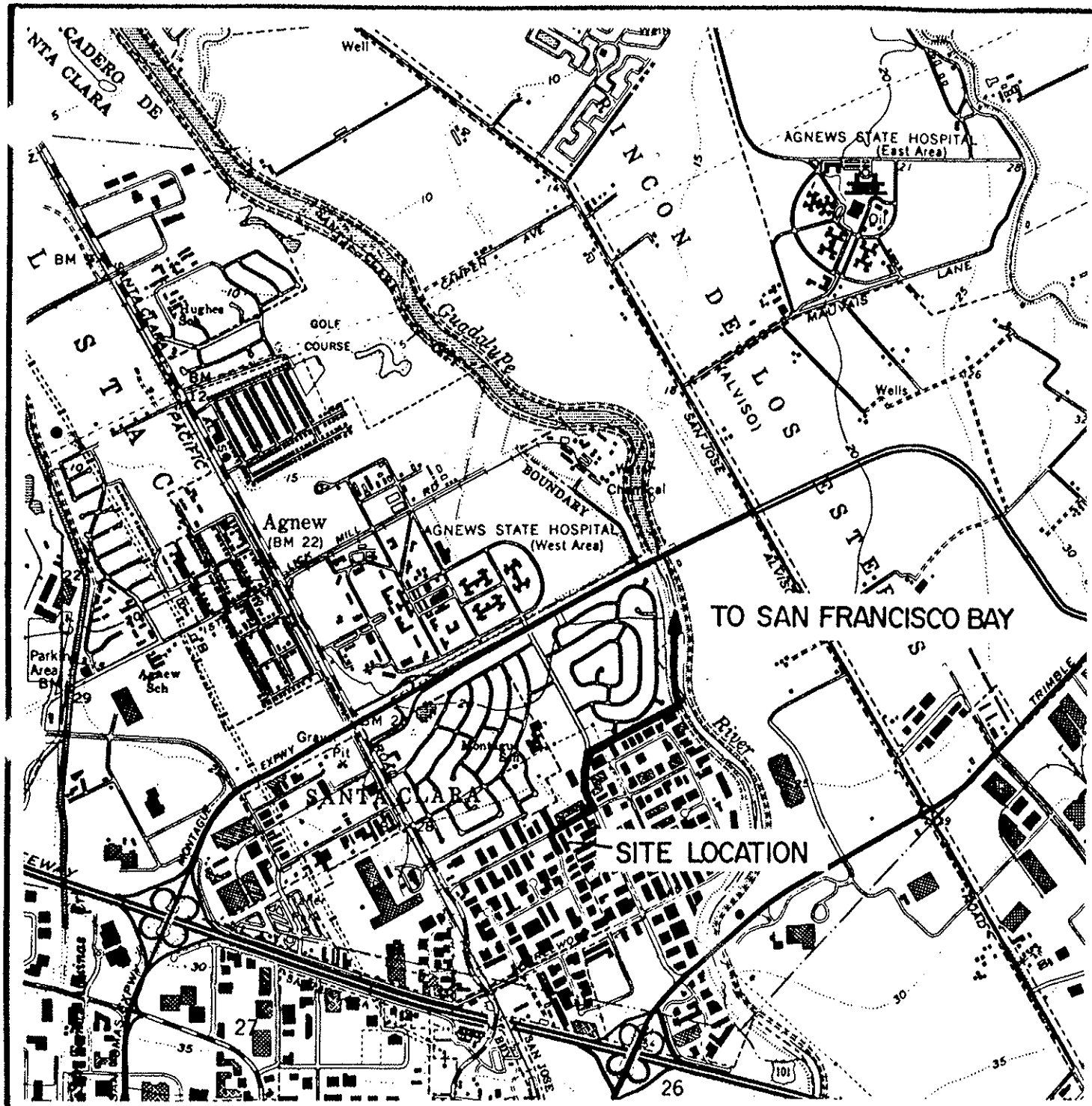
6. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Steven R. Ritchie, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on July 20, 1988.

STEVEN R. RITCHIE
EXECUTIVE OFFICER

Attachments:

Standard Provisions & Reporting Requirements, dated December 1986
Self-Monitoring Program
Site map



DRAINAGE FLOW PATH

SITE MAP

SAFETY KLEEN
SANTA CLARA, CALIFORNIA

0 MILES 1

GROUNDWATER TECHNOLOGY

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

THE FORMER SAFETY-KLEEN FACILITY

3461 WOODWARD AVENUE

SANTA CLARA, SANTA CLARA COUNTY

NPDES NO. CA0029416

ORDER NO. 88 - 115

CONSISTS OF

PART A, dated December 1986 and modified January 1987,

PART B, Adopted: July 20, 1988

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

Station	Description
I-1	At a point in the groundwater extraction/treatment system immediately prior to treatment.

B. EFFLUENT

Station	
E-1	At a point in the groundwater extraction/treatment system immediately following treatment.

C. RECEIVING WATERS

C-1	At a point in the Guadalupe River at least 100 feet but no more than 200 feet downstream from thestorm sewer discharge point.

II. SCHEDULE OF SAMPLING AND ANALYSIS

A. The schedule of sampling and analysis shall be that given in Table I.

III. MISCELLANEOUS REPORTING

If any chemical additives are proposed to be used in the operation of the treatment system it shall be reported 30 days prior to their use.

IV. MODIFICATION TO PART A

A. Deletions:

Sections D.2.e, D.2.g, D.3.b, E.1.e, E.1.f, E.3., andE.4.

G.4.e.1 Influent and Effluent Data Summary Reportsshall be submitted only to the Regional Board Executive Officer, not to the EPA.

B. Modifications:

G.4 Written reports under G.4 shall be submitted within 45 days of the end of each calendar quarter with the first report due November 15.

G.4.b The report format shall be prepared in a format acceptable to the Executive Officer. The example in Appendix A is provided as guidance.

G.4.e The report format will be prepared in a format acceptable to the Executive Officer. NPDES Discharge Monitoring Report, EPA Form 3320-1, is provided as guidance.

G.5 By July 30 of each year, the discharger shall submit, in place of the quarterly report, an annual report to the Regional Board covering the previous year.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with site cleanup requirements established in Regional Board Order No. 87 - 22.

2. Was adopted by the Board on July 20, 1988.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer or Regional Board.

STEVEN R. RITCHIE
EXECUTIVE OFFICER

Attachment: Table I

T A B L E 1

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	I-1		E-1	C-1
Type of Sample	G		G	G
Flow Rate (Gal/Min)	W		W	
pH (units)			M	Y
Dissolved Oxygen (mg/l and % Saturation)			2/Y	Y
Temperature (C)			2/Y	Y
Fish Tox'y 96-hr. TL % Surv'l in undiluted waste			Y	
EPA Method 8015 for mineral spirits and EPA Method 8010	* D,W,M		* D,W,M	
EPA Method 8240 (open scan)				Y

LEGEND FOR TABLE

G = Grab Sample
D = Daily
W = Once each week
M = Once each month
2/Y = Once in March and September
Y = Once a year in September
* = Daily for the first week, weekly for the first month and monthly thereafter